

**REMARKS/ARGUMENTS**

In the Office Action mailed on June 12, 2008, the Examiner objected to Claims 24-28, 30-37 and 40-44 of this application under 35 U.S.C. 103(a) as unpatentable over Smithyman (USPN 6,047,497) in view of Yates (US5904909). Claim 29 was rejected on the same basis and further in view of McCurrie (US1849194).

Applicant appreciates the time and consideration provided by the Examiner in reviewing this application, and thanks Examiner Ark for agreeing to meet with him for an interview and giving the opportunity to explain the invention in person.

Applicant amended the pending claims to further emphasize the structure of the fumigation system as disclosed in the specification. In making these revisions care has been taken that no new matter is introduced and the amended claims are fully supported by the specification as originally filed in the present application.

Applicant respectfully traverses the rejection at least for the following reasons:

**Independent claims 24, 25 and 45:**

The Examiner considered the independent Claim 24 to be unpatentable over the features of the apparatus and method shown in US 6047497 (*Smithyman*) when viewed in combination with US 5904909 (*Yates*).

Claim 24 as recently amended is directed to a mobile fumigation system located within at least one ISO general purpose shipping container, wherein at least a part of the space within the container is adapted for a fumigation chamber. The fumigation chamber is separated by a gas-tight partition wall from a compartment containing a fumigation apparatus. The fumigation apparatus comprises a fumigant inlet device to allow a flow of a fumigant into the fumigation chamber; an extraction device arranged to remove a majority of the fumigant from the fumigation chamber; an absorption device to absorb the fumigant extracted from the fumigation chamber. The fumigation apparatus is operatively connected with a fumigation chamber through the partition wall. The claim was amended to emphasize the structure of the container and the fact that the entire fumigation system including the fumigation chamber, the fumigation apparatus with the supply of the fumigant and the pipe system are located in the same shipping container. The support could be found, for example, in Specification, on page 6, line 17-36, and in Figs. 1 and 2.

Claim 25 as amended is directed to a mobile fumigation system, comprising a fumigation chamber defined by at least one gas-tight ISO general purpose shipping container adapted to accommodate produce to be fumigated, and a fumigation apparatus located in a separate container,

wherein the fumigation apparatus is operatively coupled to the fumigation chamber of the at least one gas-tight general purpose shipping container, the fumigation apparatus comprising a fumigant inlet device for flowing fumigant into the fumigation chamber; an extraction device for removing a majority of the fumigant from the fumigation chamber; and an absorption device for absorbing the fumigant removed from the fumigation chamber. The claim is fully supported by FIG. 3 and the specification Page 9, lines 25 to Page 10, line 9.

It is noted that the Examiner cited Column 4, lines 29-31 of Smithyman, which teaches:

“...the regions 44a-44c are areas on a vehicle, such as a compartments on a truck or a railroad car.”

However, later in Column 6, lines 15-22 of Smithyman teaches:

“In an embodiment of the invention, the gas mixing system 20 shown in FIG. 2 is mounted on a wheeled chassis, such as a trailer, or on a vehicle, such as an automobile, a boat, or a railroad car, so that the gas mixing system 20 may be transported to different locations and connected to regions requiring fumigation. Alternatively, the gas mixing system 20 is mounted on a vehicle and supplies gaseous mixture to a region located on the vehicle itself.” (Emphasis added)

When considering Figure 1 of Smithyman, in conjunction with the text at col. 4, lines 9-31, the fumigant inlet means, the exhaustion means and the scrubber filter 68 are located outside of the compartments 44a-44c. They might all be located on the back of a truck, but they are still located outside of the compartments 44a-44c. The text of Smithyman from col. 3, line 17 onwards actively teaches that the gas mixing apparatus 10, the control valves 60,62, the pipework, the blower 54, the scrubber/filter 68 etc are all connected to the compartments 44a-44c. This does not in any way suggest “within”. Smithyman simply does not teach anywhere that these components can be housed within a first portable container, that includes a further compartment to which these components are then connected.

Figure 2 of Smithyman, in conjunction with the text at col. 6, lines 15-22, discloses the fumigant inlet means (in this case a mixing system 20) again located outside of the compartments 44a-44c. Again, the text clearly states that “the gas mixing system 20 may be transported to different locations and connected to regions requiring fumigation.” Alternatively, it is “mounted on a vehicle and supplies gaseous mixture to a region located on the vehicle itself.”

In contrast, as shown in Figures 1-3 of the present patent application, the fumigant inlet device, the exhaustion device, and the absorption device are all located within either a first shipping container (Figs 1 & 2) or a second shipping container (Fig 3). The entire fumigation system is thus self-

contained within the shipping container(s), and this makes for an easy and fully portable fumigation of container-transported produce. The fumigation apparatus "goes with the container" and such a container can make use of all existing infrastructure for the handling of shipping containers.

Further, it can be strongly argued that the problem identified in Smithyman (i.e. the minimization of flammable levels of phosphine and its self ignition under certain atmospheric conditions)

would teach strongly away from any such containment of the gas mixing apparatus into the compartments 44a-44c.

In this regard, Smithyman states at column 2, lines 49-64:

"However, there is a need for systems capable of managing the flow of such gaseous mixtures during fumigation of particular areas. In addition, there is a need for systems capable of mixing gases on site during fumigation to allow for separate supply of components of the mixtures.

Thus, Smithyman clearly teaches away from the present invention.

In light of the foregoing, there is a need in the art for improving fumigations by limiting potentially flammable concentrations of phosphine, reducing worker risk, eliminating the need to retrieve, treat, and dispose of metal phosphide materials, having the ability to stop the introduction of phosphine at will, and producing phosphine gas independently of environmental conditions. Furthermore, there is a need in the art for providing protection to stored products over extended periods of time."

Applicant respectfully submits that none of the cited prior art documents, alone or in combination, discloses or suggests a mobile fumigation system entirely contained in a single shipping container, or connected shipping containers as claimed by the present invention.

The Applicant asserts that the skilled person in the art of developing in-container fumigation apparatus would need some inventiveness to be able deduce the instant claimed invention from a combination of any of the cited prior art documents. Attached herewith is a Declaration under 37 CFR 1.132 of the inventor, Kenneth George Brash.

Since the independent claims as amended and newly introduced are believed to be allowable over the known prior art, the dependent claims are also allowable.

In view of the above, Applicant respectfully requests reconsideration of Examiner's decision and allowance of the application as presently amended.

The Commissioner is hereby authorized to charge any additional fees which may be required in this application under 37 C.F.R. §§1.16-1.17 during its entire pendency, or credit any overpayment, to Deposit Account No. 06-1135. Should no proper payment be enclosed herewith, as by a check being in

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the wrong amount, unsigned, post-dated, other-wise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1135.

Respectfully submitted,

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Dated: November 12, 2008

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